

Listing of Claims

1-3 (CANCELED)

1 4. (Previously Presented) A system for developing an application user interface, the system
2 comprising:

3 an integrated development environment configured for a developer to specify a user
4 interface element in the application user interface, the user interface element
5 having a user customizable property, the application user interface being
6 configured as an interface between an internet application and a user;

7 an application designer configured to produce metadata characterizing the customizable
8 property; and

9 a data repository including a data record associated with the customizable property, the
10 data record being modifiable by a user of the internet application and accessible
11 using the metadata.

1 5. (Previously Presented) The system of claim 4, wherein a state of the user customizable
2 property is configured to persist between a display of the application user interface and
3 another display of the application user interface.

1 6. (Previously Presented) The system of claim 4, further including an application server
2 configured to support the internet application.

1 7. (Previously Presented) The system of claim 4, wherein the integrated development
2 environment is further configured to associate the user interface element with a procedure
3 within the internet application.

1 8. (Previously Presented) The system of claim 4, further including means for generating the
2 internet application interface.

1 9. (Previously Presented) A system for developing an application user interface, the system
2 comprising:
3 an integrated development environment configured for a developer to specify a user
4 interface element in the application user interface, the user interface element
5 having a user customizable property, the user customizable property being a
6 response to a user input device, the application user interface being an interface
7 between a user and an internet application;
8 a data repository including a data record configured to store a value characterizing the
9 user customizable property, the value being user modifiable; and
10 an application designer configured to produce metadata for accessing the data record.

1 10. (Previously Presented) The system of claim 9, further including an internet application
2 system configured to support the internet application.

1 11. (Previously Presented) The system of claim 9, wherein a state of the user customizable
2 property is configured to persist between a displaying of the application user interface
3 and another displaying of the application user interface.

1 12. (Previously Presented) The system of claim 9, wherein the customizable property is further
2 responsive to an identity of the user.

1 13. (Previously Presented) A system for developing an internet application user interface, the
2 system comprising an integrated development environment configured for specifying a
3 user interface element in the internet application user interface, the user interface element
4 having a user customizable tab-order property, the integrated development environment
5 including an application designer configured to produce metadata configured to
6 characterize the customizable tab-order property.

1 14. (Previously Presented) A system for developing an application user interface associated with
2 an internet application comprising:
3 an integrated development environment configured for a developer to specify a user
4 interface element in the application user interface, the user interface element
5 having a user customizable tab-order property, the integrated development
6 environment including an application designer configured to produce metadata to
7 access a data record; and
8 a data repository including the data record for storing data characterizing the
9 customizable tab-order property, the data being user modifiable.

1 15. (Previously Presented) The system of claim 14, wherein the customizable tab-order property
2 includes tab-over.

1 16. (Previously Presented) The system of claim 15, wherein the integrated development
2 environment is further configured to specify an additional user interface element in the
3 application user interface, the additional user interface element specifiable to be skipped
4 in a tab-order.

1 17. (Previously Presented) The system of claim 16, wherein the additional user interface element
2 is a button.

1 18. (Previously Presented) The system of claim 16, wherein the additional user interface element
2 is an image.

1 19. (Previously Presented) The system of claim 14, wherein the customizable tab-order property
2 is configurable according to a class of user interface elements.

1 20. (Currently Amended) The system of claim 14, wherein the customizable tab-~~over~~order
2 property is configurable according to the identity of a user.

1 21. (Currently Amended) The system of claim 14, wherein the customizable tab-~~over~~order
2 property is configurable according to the identity of a client.

1 22. (Currently Amended) The system of claim 14, wherein the metadata is configured to
2 characterize the tab-~~over~~order property of a specific application component.

1 23. (Previously Presented) The system of claim 14, wherein the metadata includes a query for
2 accessing the data record.

1 24. (Currently Amended) The system of claim 14, wherein the data is user modifiable using a
2 personalization system- integrated into the internet application.

1 25. (Previously Presented) The system of claim 14, wherein the data record includes a reference
2 to an additional data record, the additional data record including additional data further
3 characterizing the customizable tab-order property.

1 26. (Previously Presented) The system of claim 25, wherein the additional data is user
2 modifiable.

1 27. (Previously Presented) A customizable application system comprising:
2 an internet application system configured to support an internet application;
3 an application user interface including a user interface element, the application user
4 interface configured as an interface between the internet application and a user,
5 the user interface element including a user customizable tab-order property, the
6 user interface element configured for delivery to a client over a computer
7 network;
8 metadata characterizing the customizable tab-order property; and
9 a data repository including a data record configured to store a value characterizing the
10 customizable tab-order property, the value being user modifiable.

1 28. (Previously Presented) The customizable application system of claim 27, wherein the client
2 is configured to display the application user interface using standard web browser
3 protocols.

1 29. (Previously Presented) The customizable application system of claim 27, wherein the client
2 is configured to display the application user interface using features of a web browser,
3 the features not requiring a browser add-on, plug-in, or extensions.

1 30. (Previously Presented) The customizable application system of claim 27, further including
2 means for generating the application user interface using the metadata.

1 31. (Previously Presented) The customizable application system of claim 27, wherein the data
2 record includes additional metadata.

1 32. (Previously Presented) The customizable application system of claim 27, further including a
2 personalization system configured to modify the data record.

1 33. (Previously Presented) The customizable application system of claim 32, wherein the data
2 repository includes a user profile configured to store personalization data generated using
3 the personalization system.

1 34. (Previously Presented) An internet application system comprising:
2 a user interface generator configured to generate a user interface including a user
3 interface element, the user interface being compatible with a standard web
4 browser and being generated in response to a request from a user, the user
5 interface element including a user customizable tab-order property;
6 a web application server configured to deliver the user interface to a client; and
7 an internet application accessible to the user through the generated user interface.

1 35. (Previously Presented) The internet application system of claim 34, wherein the user
2 interface generator is further configured to use metadata for characterizing the
3 customizable tab-order property.

1 36. (Previously Presented) The internet application system of claim 34, wherein the
2 customizable tab-order property includes tab-over.

1 37. (Previously Presented) The internet application system of claim 34, wherein the user
2 interface generator is further configured to use metadata for characterizing the tab-order
3 property, the metadata including a reference to a data record, the data record including a
4 user defined parameter.

1 38. (Previously Presented) The internet application system of claim 34, wherein the user
2 interface generator is configured to use a user modifiable data record for characterizing
3 the tab-order property.

1 39. (Previously Presented) The internet application system of claim 34, wherein the internet
2 application includes a configuration system configured to modify data characterizing the
3 tab-order property.

1 40. (Previously Presented) The internet application system of claim 34, wherein the client is a
2 wireless system.

1 41. (Previously Presented) An internet application comprising:
2 a computer program configured to run on an internet application system;

3 an application user interface including a user interface element with a customizable tab-
4 order property, the application user interface configured for delivery to a client
5 and to operate as an interface between a user and the internet application;
6 a user modifiable data record stored in a location physically remote from the client, the
7 data record configurable for use by a user interface generator to generate the
8 application user interface, the data record further configurable to characterize the
9 customizable tab-order property; and
10 metadata configurable for use by the user interface generator to access the user
11 modifiable data record.

1 42. (Previously Presented) The internet application of claim 41, wherein the metadata includes a
2 query.

1 43. (Previously Presented) The internet application of claim 41, wherein the data record is
2 further configured such that generation of the application user interface is responsive to
3 an identity of the client.

1 44. (Previously Presented) The internet application of claim 41, wherein the data record is
2 further configured such that generation of the application user interface is responsive to
3 an identity of the user.

1 45. (Previously Presented) The internet application of claim 41, wherein the data record is
2 configurable using a configuration interface.

1 46. (Previously Presented) An application user interface between a user and an internet
2 application, the application user interface including a user interface element, the
3 application user interface further being generated using metadata and being configured
4 for display using a standard web browser, the metadata being configured to access a user
5 modifiable data record that includes a value characterizing a user customizable tab-order
6 property, the user interface element including the user customizable tab-order property.

1 47. (Currently Amended) The application user interface of claim 46, wherein the value
2 characterizing a user customizable tab-order property is ~~dependant~~ dependent on an
3 identity of a user of the application user interface.

1 48. (Previously Presented) The application user interface of claim 46, wherein the user
2 customizable tab-order property includes tab-over configurable to be responsive to a class
3 of user interface elements.

1 49. (Previously Presented) The application user interface of claim 46, wherein the application
2 user interface is a user profile interface.

1 50. (Previously Presented) The application user interface of claim 46, further including means
2 for displaying the application user interface.

1 51. (Previously Presented) A customizable application system comprising:
2 an internet application system configured to support an internet application, the internet
3 application including metadata configured for generating an application user
4 interface with a user interface element, the internet application system including,

5 a) an application server configured to generate the application user
6 interface, and
7 b) a web application server configured to deliver the application user
8 interface to a client;
9 an application development system configured to generated the metadata, the metadata
10 being further configured to access configuration data characterizing a tab-order
11 property of the user interface element;
12 a configuration system including a configuration engine and a configuration interface, the
13 configuration interface configured to modify the configuration data;
14 a data repository including a data record for storing the configuration data, the data
15 record being accessible using the metadata.

1 52. (Previously Presented) A customizable application system comprising:

2 an internet application system configured to support an internet application, the internet
3 application associated with metadata configured for generating an application user
4 interface including a plurality of user interface elements having a tab-order
5 property, the internet application system including,

6 a) an application server configured to generate the application user
7 interface, and
8 b) a web application server configured to deliver the application user
9 interface to a client;

10 a personalization system including a personalization engine and a user profile interface,
11 the personalization interface configured for modification of personalization data

characterizing the tab-order property such that the tab-order of the plurality of user interface elements is modified; and
a data repository including a data record for storing the personalization data, the data record being accessible using the metadata.

53. (Previously Presented) A method of developing a user interface element, the method comprising the steps of:
selecting a customizable property;
including the customizable property in the user interface element;
determining a data record for holding a value to characterize the customizable property, the data record being stored in a data repository and being user modifiable, the data repository being physically remote from a client used to display an HTML based application user interface;
generating metadata further characterizing the customizable property, the metadata including a reference to the data record; and
storing the metadata in association with the user interface element, the user interface element being configurable for inclusion in the HTML based application user interface.

54. (Previously Presented) The method of claim 53, wherein the application user interface is configured for accessing an internet application.

55. (Previously Presented) The method of claim 54, wherein the step of determining a data record is responsive to the identity of a user.

1 56. (Previously Presented) The method of claim 54, wherein the user modifiable data record is
2 configured such that the value used to characterize the customizable property persists
3 between a generation of the application user interface and another generation of the
4 application user interface.

1 57. (Previously Presented) The method of claim 54, wherein the customizable property includes
2 a response to a user input device.

1 58. (Previously Presented) The method of claim 53, wherein the customizable property includes
2 tab-order.

1 59. (Previously Presented) A method of developing an application user interface associated with
2 an internet application, the method comprising the steps of:
3 selecting a user customizable user interface element associated with a data record, the
4 data record being stored in a data repository and being user modifiable, the data
5 repository being physically remote from a client used to display the application
6 user interface;
7 including the user customizable user interface element in the application user interface;
8 generating metadata characterizing the user customizable user interface element, the
9 metadata including a reference to the data record; and
10 storing the metadata in association with the internet application, the internet application
11 being configured for access using the application user interface.

1 60. (Previously Presented) The method of claim 59, wherein the application user interface is
2 generated responsive to the identity of a requestor.

1 61. (Previously Presented) The method of claim 59, wherein the user modifiable data record is
2 configured such that a value stored in the data record and used to characterize the
3 customizable property persists between a generation of the application user interface and
4 another generation of the application user interface.

1 62. (Previously Presented) The method of claim 59, wherein a customizable property of the user
2 customizable user interface element includes a response to a user input device.

1 63. (Previously Presented) The method of claim 59, wherein a customizable property of the user
2 customizable user interface element includes tab-order.

1 64. (Previously Presented) A method of generating an application user interface, the method
2 comprising the steps of:
3 accessing a page definition, the page definition including metadata for defining a user
4 customizable property of the application user interface;
5 obtaining a reference to a user modifiable data record, using the metadata;
6 accessing the user modifiable data record using the reference, the data record being stored
7 in a data repository physically remote from a client used to display the customized
8 application user interface;
9 reading the data record to determine a value characterizing the user customizable
10 property;

generating markup-language responsive to the value; and
including the generated markup-language in the application user interface.

65. (Previously Presented) The method of claim 64, wherein the application user interface is an interface to an internet application.

66. (Previously Presented) The method of claim 64, further including modifying the value using a configuration system.

67. (Previously Presented) The method of claim 64, wherein the user customizable property is a response to a user input device.

68. (Previously Presented) The method of claim 64, wherein the user customizable property is tab-order.

69. (Previously Presented) The method of claim 64, wherein the application user interface is configurable for display using standard web browser protocols.

70. (Previously Presented) A method of customizing tab-order in an HTML based application user interface, the method comprising the steps of:
accessing a configuration system, the configuration system including a configuration engine and a configuration interface;
selecting, using the configuration interface, a tab-order property of a user interface element in the HTML based application user interface, the tab-order property being user customizable; and

8 specifying configuration data using the configuration interface, the configuration data
9 characterizing the tab-order property and the configuration data being stored in a
10 data repository physically remote from a client used to display the HTML based
11 application user interface, the HTML based the application user interface being an
12 interface between a user and an internet application.

1 71. (Previously Presented) The method of claim 70, wherein the tab-order property is a tab-over
2 property.

1 72. (Previously Presented) The method of claim 70, wherein the configuration data is configured
2 such that a state of the HTML based application user interface persists between a
3 generation of the HTML based application user interface and another generation of the
4 HTML based application user interface.

1 73. (Previously Presented) The method of claim 70, further including a step of modifying the
2 configuration data using a personalization system.

1 74. (Previously Presented) The method of claim 70, wherein the HTML based application user
2 interface is displayed at the client without requiring a browser add-on, plug-in, or
3 extension.

1 75. (Previously Presented) A method of customizing tab-order in an application user interface,
2 the method comprising the steps of:
3 accessing a configuration system, the configuration system including a configuration
4 engine and a configuration interface;

5 selecting, using the configuration interface, a tab-order property of a user interface
6 element in the application user interface, the tab-order property being user
7 customizable;
8 specifying configuration data using the configuration interface, the configuration data
9 characterizing the tab-order property; and
10 generating the application user interface using the specified configuration data, the
11 application user interface being HTML based and being configured to access an
12 internet application.

1 76. (Previously Presented) The method of claim 75, further including displaying the application
2 user interface using standard web browser protocols.

1 77. (Previously Presented) The method of claim 75, wherein the tab-order property is a tab-over
2 property.

1 78. (Previously Presented) The method of claim 77, wherein the tab-over property is
2 configurable responsive to a class of user interface elements.

1 79. (Previously Presented) The method of claim 75, wherein the step of generating the
2 application user interface is responsive to an identity of a user.

1 80. (Previously Presented) A method of executing an internet application comprising the steps
2 of:
3 receiving a request for an application user interface from a client, the application user
4 interface including a user interface element;

5 accessing a page definition, the page definition including metadata and defining the
6 requested application user interface;
7 retrieving a value characterizing a user customizable tab-order property of the user
8 interface element using the metadata, the value being stored in a data repository
9 physically remote from the client;
10 generating HTML responsive to the value;
11 including the generated HTML in the application user interface; and
12 delivering the application user interface to the client, the application user interface being
13 an interface between a user and the internet application.

1 81. (Previously Presented) The method of claim 80, wherein the user customizable tab-order
2 property is a user customizable tab-over property.

1 82. (Previously Presented) The method of claim 80, wherein the value is personalization data.

1 83. (Previously Presented) The method of claim 80, further including displaying the application
2 user interface at the client using standard web browser protocols.

1 84. (Previously Presented) The method of claim 80, wherein the step of retrieving a value uses
2 an identity of a requester of the application user interface.

1 85. (Previously Presented) A method of generating an application user interface including a
2 customizable tab-order property, the method comprising the steps of:
3 accessing a page definition, the page definition including metadata characterizing the
4 customizable tab-order property;

5 reading a value from a data record using the metadata, the data record being stored in a
6 data repository physically remote from a client used to display the application
7 user interface, the value being user modifiable and further characterizing the
8 customizable tab-order property;
9 generating HTML responsive to the value; and
10 including the HTML in the application user interface, the application user interface being
11 an interface to an internet application.

1 86. (Previously Presented) The method of claim 85, wherein the customizable tab-order property
2 is a customizable tab-over property.

1 87. (Previously Presented) The method of claim 85, wherein the data record includes
2 configuration data.

1 88. (Previously Presented) The method of claim 85, further including displaying the application
2 user interface using standard web browser protocols.

1 89. (Previously Presented) The method of claim 85, wherein a state of the customizable tab-
2 order property persists between a generation of the application user interface and another
3 generation of the application user interface.

1 90. (Previously Presented) The method of claim 85, further including identifying a requestor of
2 the application user interface, wherein the step of reading a value is responsive to an
3 identity of the requestor.

1 91. (Previously Presented) A method of generating an application user interface configured for
2 delivery from a server to a client, the method comprising the steps of:
3 receiving, at the server, a request for the application user interface from the client, the
4 application user interface including a user interface element;
5 identifying the requester of the application user interface;
6 accessing a page definition, the page definition including metadata and defining the
7 application user interface;
8 retrieving, using the metadata and the identity of the requester, a value relating to a user
9 customizable tab-order property of the user interface element, the value being
10 stored in a data repository physically remote from the client;
11 generating HTML or Java script using the value; and
12 including the HTML or Java script in the application user interface.

1 92. (Previously Presented) The method of claim 91, wherein the user customizable tab-order
2 property is a user customizable tab-over property.

1 93. (Previously Presented) The method of claim 91, further including displaying the application
2 user interface at the client using standard web browser protocols.

1 94. (Previously Presented) A computer readable medium including an internet application, the
2 internet application comprising:
3 metadata defining an application user interface, the application user interface including a
4 user interface element with a user customizable tab-order property, the application

5 user interface configured for delivery to a client and configured to operate as an
6 interface between a user and the internet application;
7 a user interface generator configured to generate the application user interface using a
8 user modifiable data record stored in a location physically remote from the client,
9 the user modifiable data record configurable to characterize the user customizable
10 tab-order property; and
11 a configuration system configured for a user to modify the user modifiable data record.

1 95. (Previously Presented) A computer readable medium including an internet application, the
2 internet application comprising:
3 an application designer configured to develop an application user interface, the
4 application user interface including a user interface element with a user
5 customizable tab-order property, the application user interface configured for
6 delivery to a client and configured to operate as an interface between a user and
7 the internet application;
8 a user interface generator configured to generate the application user interface using a
9 user modifiable data record stored in a location physically remote from the client,
10 the user modifiable data record configurable to characterize the user customizable
11 tab-order property; and
12 a configuration system configured for a user to modify the user modifiable data record.

1 96. (Previously Presented) An application execution system comprising:
2 means for supporting an internet application;

3 means for generating an application user interface using a user modifiable data record
4 configured to store data characterizing a user customizable tab-order property;
5 and

6 means for providing the application user interface to a user, the application user interface
7 including a user interface element, the application user interface configured as an
8 interface between the internet application and the user, the user interface element
9 including the user customizable tab-order property, the user interface element
10 configured for delivery to a client over a computer network.